

C1
and

factors, however, it is particularly preferred that a ratio of Ni and P (Ni:P) be in the range of about (67 to 85):(33 to 15). In other words, a content (concentration) of P in the NiP underlayer is preferably about 15 to 33 at%. The lower limit of the P concentration in the NiP underlayer is 15 at% at which the NiP underlayer can substantially show a non-magnetic property, since the NiP underlayer should have a non-magnetic property to avoid any problems in the magnetic recording. The NiP alloy may have different forms, and when the NiP alloy in the form of a crystalline body is considered, the NiP alloy with the highest P concentration is Ni₃P which is known to be a non-magnetic material. Further, it is also known that NiP can be in the form of an amorphous structure, if the P concentration is in the range of 15 to 26 at%. Note, in this connection, that the NiP layer in an amorphous form has substantially a non-magnetic property, but, if the P concentration is reduced to below 15 at%, a magnetic property is produced in the NiP layer as a result of deposition of a Ni layer. The upper limit of the P concentration in the NiP underlayer is 33 at%, because if the P concentration is increased to above 33 at%, there is no target NiP sufficient to satisfy the sputtering process. That is, the NiP target material containing an increased amount of P is brittle and therefore it cannot be fabricated to a hard NiP target having a high purity.

In the Claims:

Please amend claim 1 to read as follows:

C2
sub
D1

1. (Twice Amended) A magnetic recording disk comprising a nonmagnetic glass or silicon substrate having non-oriented irregularities on a surface thereof,